

Notice of Allowability

Application No.

10/527,124

Examiner

Cindy D. Khuu

Applicant(s)

BETZ ET AL.

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/8/05.
2. ☒ The allowed claim(s) is/are 12-22.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 3/8/05
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

The abstract: Replace the term "comprising" (line 1) with the term -- including -- and Replace the terms "comprising means" (line 4) with the terms --including mechanism --.

Pertinent Art Cited

The following US Patent Applications reveal the current state of the art:

Putty et al. (US 5,383,362) teach a rotational speed sensor (Fig. 3), comprising: a vibrating gyroscope (10) arranged and dimensioned for receiving primary and secondary excitation signals (D1 and D2) and generating primary and secondary output signals (S1 and S2); a primary control loop (41) arranged and dimensioned for amplifying the primary output signal (41 to 42 to 30), and sending the modulated primary output signal to said vibrating gyroscope as the primary excitation signal ($V(\beta)$); a secondary control loop (40) arranged and dimensioned for amplifying the secondary output signal (40 to 42 to 30), and sending the modulated secondary output signal to said vibrating gyroscope as the secondary excitation signal ($V(\alpha)$).

However, Putty does not teach at least a frequency synthesizer connected to the primary and secondary control and arranged and dimensioned for producing carriers for demodulation and remodulation and setting phases of the carriers in relation to one another, said carriers comprising a comparative carrier for said primary control loop; and a phase comparison circuit arranged in said primary control loop for

receiving the amplified primary output signal and the comparative carrier produced by said frequency synthesizer, said phase comparison circuit and frequency synthesizer forming a phase-locked loop.

Johnson et al. (US 5,616,864) teach a rotational speed sensor (Fig. 4), comprising: a vibrating gyroscope (10) arranged and dimensioned for receiving primary and secondary excitation signals (main drive and compensation signals) and generating primary and secondary output signals (0 and 45 senses); a primary control loop (30) arranged and dimensioned for amplifying (28) the primary output signal, demodulating (demodulator) the amplified primary output signal, and sending the demodulated primary output signal to said vibrating gyroscope as the primary excitation signal (28 to 32 to 34 to 10); a secondary control loop (40) arranged and dimensioned for amplifying (28) the secondary output signal, demodulating (demodulator) the amplified secondary output signal, and sending the demodulated secondary output signal to said vibrating gyroscope as the secondary excitation signal (28 to 50 to 10);

However, Johnson does not teach at least a frequency synthesizer connected to the primary and secondary control and arranged and dimensioned for producing carriers for demodulation and remodulation and setting phases of the carriers in relation to one another, said carriers comprising a comparative carrier for said primary control loop; and a phase comparison circuit arranged in said primary control loop for receiving the amplified primary output signal and the comparative carrier produced by said frequency synthesizer, said phase comparison circuit and frequency synthesizer forming a phase-locked loop.

Allowable Subject Matter

Claims 12-22 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for the allowance of claims 12 and 22 is the inclusion of the limitation "a frequency synthesizer connected to the primary and secondary control and arranged and dimensioned for producing carriers for demodulation and remodulation and setting phases of the carriers in relation to one another, said carriers comprising a comparative carrier for said primary control loop; and a phase

comparison circuit arranged in said primary control loop for receiving the amplified primary output signal and the comparative carrier produced by said frequency synthesizer, said phase comparison circuit and frequency synthesizer forming a phase-locked loop". The prior art of record, taken alone or in combination, fails to disclose or render obvious.

Claims 13-21 are allowed due to their dependency on claim 12.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cindy D. Khuu whose telephone number is (571) 272-8585. The examiner can normally be reached on M-F, 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

one 1/12/06


MICHAEL NGHIEM
PRIMARY EXAMINER